

Sustainability Impact Assessment (SIA) Analysis of the workshop held in Lambeth/London

1. Background

On the 31st of March 2014 the first Foodmetres case study workshop was held in the Town Hall of the London borough of Lambeth. The aim of the SIA (Sustainability Impact Assessment) activity at the Lambeth workshop was to find out how stakeholders rank the impacts of different types of “short food supply chains” and how they compare against the current baseline scenario, where most of our vegetable supply comes from supermarkets, long food chains and large-scale producers.

The impact scale is what participants (citizens, food activists, entrepreneurs, academic experts) would expect to realistically happen if we were to increase the amount of vegetables supplied through the different types of short food supply chains. The timeframe for this to happen was set at the workshop at approximately medium term (= 5 years). The potential impacts are therefore relative to the baseline scenario and can be from very negative (-3) to very positive (+3). There can also be no impact (0) or positive and negative impacts may cancel each other out (0). The activity in Lambeth was specifically concerned with vegetable food supply chains.

IMPACT SCALE						
-3	-2	-1	0	1	2	3
Very negative	Negative	Little negative	No impact or negative and positive impacts balance out	Little positive	Positive	Very positive

2. Results

2.1 General discussion and feedback

The general feedback of the exercise was positive, however it took quite some time to explain the concept and for an evening activity it requires very active participation and brainpower from the participants. In total we had 14 respondents and 3 from the research team, which we have included in the analysis. Some participants did clearly not quite understand the conceptual framework for the exercise and produced invalid responses or, in one case, rated all with 3 = very positive (this response, we have nevertheless included in the analysis, despite the lack of discrimination in rating from one person’s point of view regarding the impacts).

Further feedback was a certain randomness of the questions and the definitions. Participants wanted to know more detail on how we had come up with the selected indicators. Our participants also asked what the timeframe was (next 5-10 years or 50 years?) and suggested that this should be made clear in the document. Verbally at the meeting we suggested to them to settle on medium term = 5-years. In addition, there was also some disbelief (and/or underlying mistrust) why an EU

funded project would want to collect such information, and why “normal” citizens were asked to voice an opinion on such an issue anyway.

Despite all this, all participants managed to fill in the rating and following on from this had a lively discussion in each group on why and how they have rated the impacts like they did. This really focussed the discussion and also led to the discussion of different worldviews.

2.2 Numeric analysis

As already mentioned we have based the analysis on 17 respondents (3 researchers from the team and 14 participants). This is justified, as researchers are also stakeholders and experts, but also because the difference in the researcher and stakeholder average was very small (we have calculated both averages and will later discuss one singular clear difference between researcher and participant rating). This result may already show that the method, despite a small sample size, can produce robust results in terms of impact assessment, which will always remain a “forward looking statement” of potential impacts over a medium-term timeframe.

The results showed the highest overall impact rating of 1.98 for the short food supply chain ‘CSA - Consumer-producer partnerships/cooperatives (Community Supported Agriculture)’. This was followed by ‘Urban gardening for commercial purposes’ with a rating of 1.8 and ‘Urban gardening for private consumption’ and ‘Direct sales off farm to private consumer’ both with 1.7.

Urban short food chain	Environmental	Economic	Social	All
CSA	1.81	1.83	2.29	1.98
Urban Gardening (commercial)	1.69	1.56	2.15	1.80
Urban Gardening (self-supply)	1.74	1.05	2.31	1.70
Direct off-farm	1.51	1.71	1.86	1.70
Direct on-farm	1.38	1.29	2.00	1.55

The lowest overall rating (1.55) was for the supply chain ‘Direct sales on farm to private consumer’.

All five short food supply chains rated highest on their social aspects of sustainability. The economic and environmental aspects were rated considerably lower with not much difference in economic and environmental impacts. However, there was one notable exception the economic impact of ‘Urban gardening for private consumption’ was rated a lot lower than the environmental impact (1.05 economic and 1.74 for environmental).

It is also interesting to note that this was the only major difference where the expert average rating differed clearly from the participants’ rating; experts rated the economic impact of ‘Urban gardening for private consumption’ a 1.6 while participants only rated it 0.87. This large discrepancy of the sustainable impact of this specific food chain is, no doubt, worth further investigation.

SUSTAINABILITY IMPACT ASSESSMENT Analysis of Results
Lambeth workshop 31.03.14

As already discussed the social dimension of sustainability was rated highest across the urban food chains and within 'Social' it was 'Transparency and traceability' (2.46) closely followed by 'Food quality' (2.38) and 'Food security and food sovereignty' (2.09) which came out on top. This was then followed by 'Eco-efficiency of resource use' (1.94) and 'Food safety and human health' (1.89).

Transparency and traceability	2.46
Food quality	2.38
Food security and food sovereignty	2.09
Eco-efficiency of resource use	1.94
Food safety and human health	1.89
Recycling and reduce of packaging	1.88
Reduction of food waste	1.85
Viability of food traditions and culture	1.80
Provision of ecological habitats & biodiversity	1.71
Reduction of transport distance and emissions	1.71
Regional viability and competitiveness	1.53
Generating long-term profitability	1.37
Generating employment along the food chain	1.36
Transport efficiency	1.33
Animal protection and welfare	0.88

The economic impact was generally rated low ('Animal protection and welfare' is less applicable to vegetable supply chains and the effects are mainly indirect through low-meat and meat-free diets and their expected effect on demand for low-welfare animal husbandry systems). Therefore, it can be concluded that a low impact is expected on transport efficiency in urban short food supply chains. In addition, 'Transport efficiency' also had the lowest rating overall 0.3, and this was for the particular food supply chain of 'Direct off-farm'. In other words, participants appear to agree that the current mainstream of supermarket food supply chain has a relative strength in 'Transport efficiency', especially if compared to other impacts of the current food supply mainstream. Another low impact (0.1) was expected on 'Generating employment along the food chain' for the supply chain 'Urban Gardening (self-supply)'. This may relate to the phrasing of the question "along the food chain" and may not consider that successes in self-supply can also be classed as part-time self-employment rather than just subsistence.

The data can also be presented in spider diagrams (included at the end of document) making a more visually appealing presentation of the findings, however the data remain the same as in tabulated format.

Definitions used and shown to the participants.

Highlighted in blue italic where participants wanted more info regarding underlying assumptions.

Environmental sustainability

1. **Enhance eco-efficiency** in abiotic resource use (land/soil, water, nutrients): each food chain type is related to certain farming or gardening systems, which may use abiotic resources more efficiently or not (good input-output-relation under given regional conditions). *Participants asked what assumptions are made here. For example, are we assuming that organic or environmentally friendly practices are associated with the types of food chains in question?*
2. **Enhance provision of ecological habitats and biodiversity**: each food chain type is related to certain practices, which may enhance the provision of ecological habitats (hedges, trees), cultivate a wider range of crops and livestock including breeding of traditional or rare species and increase biodiversity in the farming system and beyond. *Participants asked for more detail on the assumptions made.*
3. **Animal protection and welfare**: Farming systems connected to certain food chains may result in different conditions for livestock. *Participants asked for more detail on the assumptions made.*
4. **Reduction of transportation distance and emissions**: a chain type may be related to a shorter transportation distance ("food miles") and possibly a different mode of transport with less emissions and use of road infrastructure (e.g. trains versus trucks)
5. **Recycling and reduced packaging**: a chain type may be related to reduction of the amount of packaging along the whole food chain and be able to recycle most or all of the input materials

Economic sustainability

1. **Generating employment along the food chain**: a chain type may create or enhance paid jobs (full- and part time, including opportunities for self-employment and volunteering) within the metropolitan region.
2. **Generating long-term profitability**: a chain type may generate income and surplus for the actors along the value chain, which can be reinvested and support the long-term economic viability of the all types of food enterprises along the chain.
3. **Regional viability and competitiveness**: a chain type may be related to regional multiplier effects in the metropolitan and nearby rural areas through e. g. regional value added, income and employment generated, tax revenues etc.
4. **Enhance transport cost-efficiency from producer to consumer**: a food chain type may enhance or reduce the cost-efficiency of transport which includes e. g. adequate vehicles, capacity utilisation, reducing the number of trips and unloaded drives etc.
5. **Reduction of food waste and losses**: a chain type may support the reduction of food waste or harvest losses (e.g. due to marketable yield size) at production stage, but also waste along all stages of food production, supply including consumption at home or out off home (restaurants etc.).

Social sustainability

1. **Food safety and human health:** a food chain type may result in the absence of pathogens and pollution in the food. Food may comply more or less with legal limits regarding microbiological, chemical or physical hazards.
2. **Food quality (freshness, taste and nutritional value):** a food chain type may result in the provision of food, which is fresh, tasteful and has good nutritional value.
3. **Viability of food traditions and culture:** a food chain type may result in the increase or decreased preservation of cultural distinctiveness, seasonal variation and local food traditions. This includes the knowledge about its preparation and cultural role including religious, ethnic or spiritual purposes.

4. **Transparency and traceability:** a food chain type may result in the increase or decrease of both.

Transparency refers to information for the consumer about the way the food is produced and distributed.

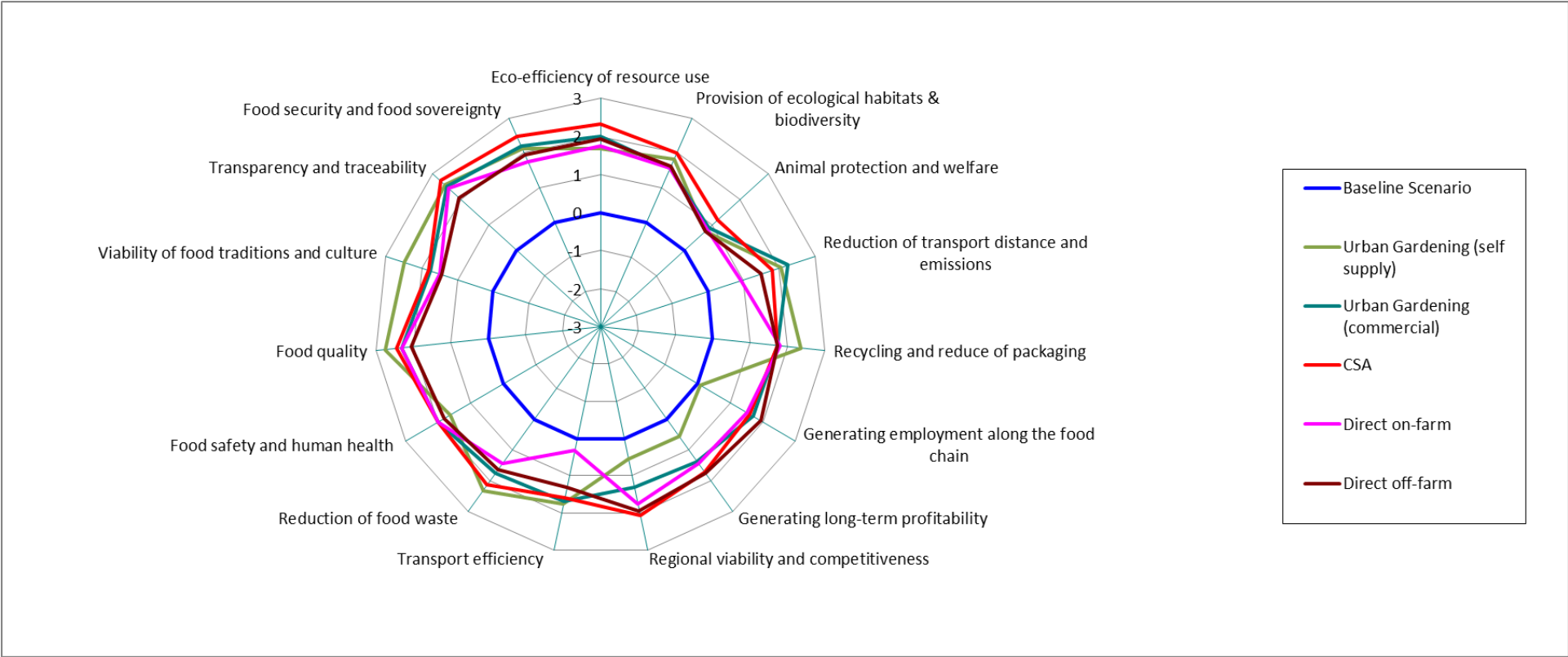
Traceability refers to the availability of information at each stage of the supply chain. Examples are direct trust-based consumer-producer relations or the use of labelling schemes (e.g. regional & fair, PDO, PGI, organic) or tracking of produce with smart codes and website information.

5. **Food security and food sovereignty:** a food chain type may result in the increase or decrease of both.

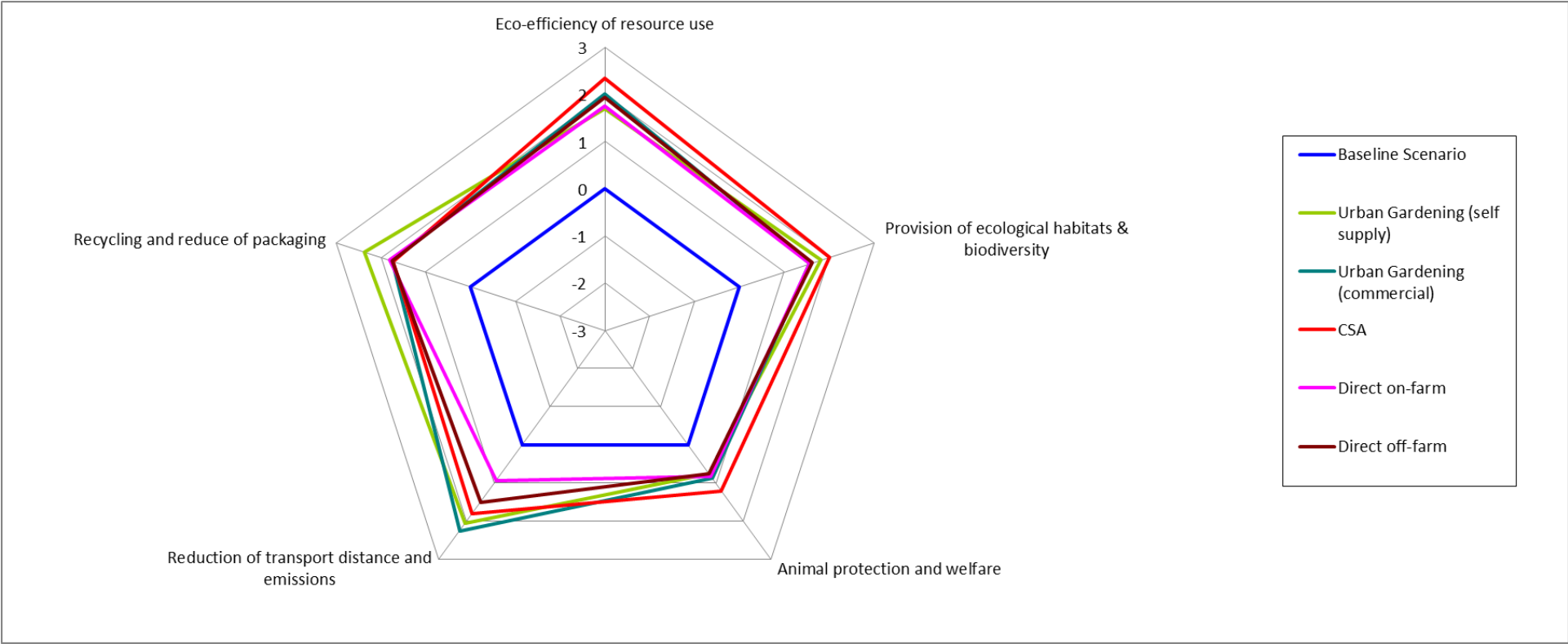
Food security refers to the availability and accessibility of food, meaning that all people, at all times, have physical, social and economic access to sufficient food.

Food sovereignty goes a step further and means that people also have the right to have “a say” or “ownership” (sovereignty) on how their food is produced, processed and supplied, including e.g. how profits, risks and public research inputs are distributed.

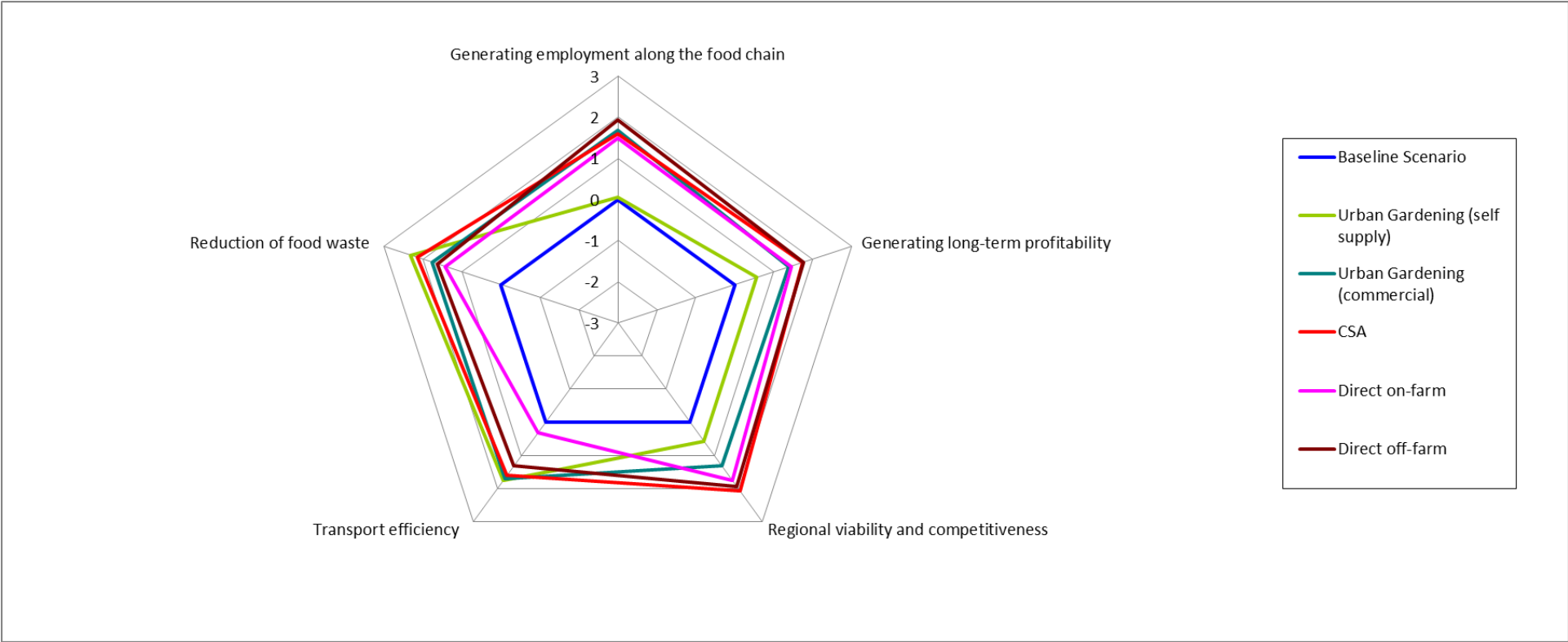
All Sustainability Dimensions and Indicators (3 x 5)



Environmental dimension



Economic dimension



Social dimension

